



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,475	12/19/2001	Todd Griffith	30346.3	2449

27683 7590 06/27/2003

HAYNES AND BOONE, LLP  
901 MAIN STREET, SUITE 3100  
DALLAS, TX 75202

EXAMINER

ORTIZ RODRIGUEZ, CARLOS R

ART UNIT PAPER NUMBER

2125

DATE MAILED: 06/27/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

7

# Office Action Summary

Application No.

10/028,475

Applicant(s)

GRIFFITH ET AL.

Examiner

Carlos Ortiz-Rodriguez

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Goel et al., “Functional explanation in design”, IJCAI-97 Workshop on Modeling and Reasoning about Function; pages 1-10.

With respect to claim 1, Goel et al. discloses a process for enabling a user to utilize a plurality of knowledge acquisition approaches to find a solution to a task(see abstract lines 5-7), the knowledge acquisition approaches including a task-method-knowledge approach(see abstract line 5) and a structure-behavior function approach(see page 1 fourth paragraph and page three last paragraph), the process comprising: defining the task by providing information specifying at least one input parameter, one output parameter(see page 1 last two lines and page 2 second paragraph) , and an initial approach; analyzing the provided information to determine whether to process the task using the task-method-knowledge approach or the structure-behavior-function approach based on the specified initial approach; processing the task using the determined approach to achieve a solution, the processing utilizing the input parameter; and determining whether the solution is correct by comparing the solution with the output parameter (see page 2 lines 12-20 .

With respect to claim 10, Goel et al. discloses the process including: determining whether the user desires to modify at least one of the input or output parameters; and modifying at least one of the input or output parameters if the user so desires (see page 4 paragraph 4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-6 and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goel et al., "Functional explanation in design", IJCAI-97 Workshop on Modeling and Reasoning about Function; pages 1-10 in view of Scott et al. U.S. Patent No. 4,713,775.

Regarding claim 2 and 11-18, Goel et al. discloses all the limitations of base claim 1 as stated above. Goel et al. further discloses a process including, if the determined approach is the task-method-knowledge approach: searching a plurality of existing methods for a method operable to provide at least a portion of the solution; selecting the method if the method exists(see page 2 second paragraph).

But Goel et al. fails to clearly disclose defining the method if the method does not exist.

However, Scott et al. further discloses disclose defining the method if the method does not exist(see abstract lines 6-11).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Goel et al. and combining it with the invention disclosed by Scott et al. The results of this combination would lead to system and method for collecting and representing knowledge using task-method-knowledge with structure-behavior-function in a computer system.

One of ordinary skill in the art would have been motivated to do this combination in order to obtain a knowledge system that provides automatic programming in order to effectively and efficiently solve the user's problems as suggested by Scott et al.

Regarding claim 3, Goel et al. in combination with Scott et al. disclose all the limitations of base claim 2.

Goel et al. further discloses a process including: searching a plurality of existing procedures for a procedure rather than searching for the method, the procedure operable to provide at least a portion of the solution; selecting the procedure if the procedure exists(see page 3 lines 10-11).

Scott et al. further discloses defining the procedure if the procedure does not exist(see abstract lines 6-11).

Regarding claim 4, Goel et al. in combination with Scott et al. disclose all the limitations of base claim 2. Goel et al. further discloses a process including defining an event, the event operable to identify when to use the method(see page 3 lines 18-20).

Regarding claim 5, Goel et al. in combination with Scott et al. disclose all the limitations of base claim 2. Goel et al. further discloses a process including providing a processing order, the processing order operable to define the order in which the method will be processed relative to a plurality of other methods awaiting processing (see page 4 last three lines of the fifth paragraph).

Regarding claim 6, Goel et al. in combination with Scott et al. disclose all the limitations of base claim 2.

Goel et al. further discloses a process including, if the determined approach is the structure-behavior-function approach (see page 3 last paragraph): searching a plurality of existing models for a model operable to provide at least a portion of the solution; selecting the model if the model exists(see page 3 last three lines)

Scott et al. further discloses defining the model if the model does not exist (see abstract lines 6-11).

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goel et al., "Functional explanation in design", IJCAI-97 Workshop on Modeling and Reasoning about

Function; pages 1-10 in view of Scott et al. U.S. Patent No. 4,713,775 and further in view  
Goward et al. U.S. Pub. No. 2002/0174268.

Regarding claim 7, Goel et al. in combination with Scott et al. disclose all the limitations of base claim 6 as stated above. Scott et al. further discloses encoding the behavior into the model using the task-method-knowledge approach if the behavior does not exist (see abstract lines 12-21). But Goel et al. in combination with Scott et al. fail to clearly disclose behaviors applicable to a model.

However, Goward et al. discloses a process further including: searching a plurality of existing behaviors for a behavior applicable to the model; selecting the behavior if the behavior exists, the selection associating the behavior with the model (see abstract lines 3-8 and fig 3 and paragraphs 53-54).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Goel et al. and Scott et al. and combining it with the invention disclosed by Goward et al.

One of ordinary skill in the art would have been motivated to do this combination because it is common in the art for knowledge system to incorporate behavior models in order to generate a variety of responses as suggested by Goward et al.

Regarding claim 8, Goel et al. in combination with Scott et al. disclose all the limitations of base claim 6 as stated above. Goel et al. further discloses connections between components (see fig 2). But, Goel et al. in combination with Scott et al. fail to clearly disclose searching a plurality of existing components.

However, Goward et al. further disclose a process wherein defining the model further includes: searching a plurality of existing components and existing connections for a first component, a second component, and a connection between the first and second components operable to represent the model and if at least one of the first component, the second component, or the connection does not exist, defining the first component, the second component, or the connection which does not exist (see fig 3).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Goel et al. and Scott et al. and combining it with the invention disclosed by Goward et al.

One of ordinary skill in the art would have been motivated to do this combination because in the knowledge system usually have components depending on other components and refering among each other.

6. Claims 9 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goel et al., "Functional explanation in design", IJCAI-97 Workshop on Modeling and Reasoning about Function; pages 1-10 in view of Scott et al. U.S. Patent No. 4,713,775 and further in view Nasr et al. U.S. Patent No. 5,018,215.

Goel et al. in combination with Scott et al. disclose all the limitations of base claim 6 and 16 as stated above. But, Goel et al. in combination with Scott et al. fail to clearly disclose mapping either the input parameter or the output parameter to at least a portion of the model .



However Nasr et al. discloses a process including mapping either the input parameter or the output parameter to at least a portion of the model, the mapping operable to assign the mapped parameter to the portion (see fig 4 element 104).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Goel et al. and Scott et al. and combining it with the invention disclosed by Nasr et al.

One of ordinary skill in the art would have been motivated to do this combination because it is common in the art for models related with system to contain parameters directly related to specific sections.

*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to system and method for collecting and representing knowledge using task-method-knowledge with structure-behavior-function in a computer system:

- a. U.S. Pat. No. 5,434,952 to Yen et al., which discloses system and method for specifying an expert system.
- b. U.S. Pat. No. 5,581,664 to Allen et al., which discloses case-based reasoning system.
- c. U.S. Pat. No. 5,644,686 to Hekmatpour, which discloses expert system and method employing hierarchical knowledge base, and interactive multimedia/hypermedia applications.
- d. U.S. Pat. No. 6,321,217 to Maeda et al., which discloses data analyzing method for generating rules.
- e. U.S. Pat. No. 6,571,251 to Koski et al., which discloses case-based reasoning system and method with a search engine that compares the input tokens with view tokens for matching cases within view.

The following publications are cited to further show the state of the art with respect to system and method for collecting and representing knowledge using task-method-knowledge with structure-behavior-function in a computer system:

Art Unit: 2125

f. U.S. Pub. No. 2002/0184178 to Tasooji et al., which discloses adaptive knowledge management system for vehicle trend monitoring, health management and preventive maintenance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Ortiz-Rodriguez whose telephone number is (703) 305-8009. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606.

Art Unit: 2125

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

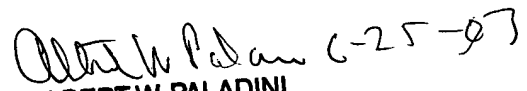
Carlos Ortiz-Rodriguez

Patent Examiner

Art Unit 2125

cror

June 19, 2003

  
**ALBERT W. PALADINI**  
**PRIMARY EXAMINER**